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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,162	08/20/2003	Stephen M. Trimberger	X-1393 US	5769

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EXAMINER	
WONG, LUT	

ART UNIT	PAPER NUMBER
2129	

MAIL DATE	DELIVERY MODE
04/20/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/644,162	TRIMBERGER, STEPHEN M.	
	Examiner	Art Unit	
	LUT WONG	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,25 and 27-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23, 25, 27-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to an RCE AMENDMENT entered 4-1-2009 for the patent application 10/644162.

Status of Claims

Claims 1-23, 25, 27-33 are pending. Claims 24, 26 are cancelled. Claim 1 has been amended.

Response to Arguments

Applicant's arguments, see pgs 9-10, with respect to 112 rejections have been fully considered and are persuasive. The rejections of claims 1-23, 25, 27-33 have been withdrawn.

Double Patenting

Applicant is advised that should claims 1-20 be found allowable, claims 21-23 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

In instant case, it appears that the only difference between claim 1 and 21 is "designs" vs. "hardware designs". It is believed that "design" is inclusive, which means

"hardware design" is already within the scoop of "design". As such, claim 21 is a duplicate of claim 1.

Should the applicant disagrees, the applicant can point out why these claims are not substantially the same. Or, the applicant can cancel or amend the claims to advance the prosecution.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim(s) **1-23** is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

In instant case, it appears that all the steps recited in the claims 1 and 21 can be done by thinking about it without a particular apparatus. The Examiner suggests amending the claim to "computer implemented method" to over the rejection.

Furthermore, how does the claim body tides to the preamble? The claim body merely recites a series of steps such as determining, selecting, replacing...etc. Nowhere does it mention a practical use of the result (i.e. tides them back to the preamble of "operating the system"). The Examiner suggests adding practical use in the claim body to connect the preamble with the body.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "evolving a new design… evaluating the new design…selecting the new design…". it is unclear why the new design needs to be selected where there is only one design being evolved. It appears that the selection step is redundant.

It is best understood by the Examiner that claim1 is parallel to claim 21. As such, claim 1 is interpreted as if claim 21 for compact prosecution.

Should the applicant disagrees, the applicant can point out why the selection is needed and where is the supports in the spec, or amending the claim to make it more clear what the invention is.

Examiner Note: [0027] mentions "In another implementation, a new design may be generated without immediate evaluation using the consensus result". Perhaps the applicant intends to claim this implementation?

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-33 are rejected under 35 U.S.C. 102(b) as being anticipated by **Sverre Vigander** ("Evolutionary Fault Repair of Electronics in Space Applications" University of Sussex, Feb 2001). As set forth in the previous office action, mailed 7/3/2008, for reason of record, except the following:

Claims 1, 21, and 25 have been previously amended (on 10/1/08) to recite evolving and selecting new design that produces response within a selected range of the consensus result.

See e.g. Sverre section 7.1.7 Elitism that fittest individual was always cloned.

EN: Since the majority vote is based on fittest of individual, Elitism means the evolved design must product response within range of consensus result.

Response to Arguments

Applicant's arguments filed 10-1-2008 have been fully considered but they are not persuasive.

In re pg. 9, applicant argues Vigander relies on known evaluation function, thus not anticipating the invention.

In response,

1) The claim does not mention anything that "known" evaluation function is not necessary. Limitations in the spec are not read into the claim. If there is such limitation, please specifically point out.

2) Why and how section (6.3) suggests "known" evaluation function? Please be specific.

Claim Rejections - 35 USC § 103

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sverre** Vigander, in view of Xin **Yao**, as set forth in the previous office action for reason of record.

Response to Arguments

Applicant's arguments filed 10-1-2008 have been fully considered but they are not persuasive.

In re pg. 10, applicant argues not all the limitations are suggested, thus not combinable.

In response, see the response above that all the limitation are suggested, thus combinable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lut Wong whose telephone number is (571) 270-1123. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent David can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lut Wong/

Examiner, Art Unit 2129

/David R Vincent/

Supervisory Patent Examiner, Art Unit 2129